Leveloader Gold

User Guide

May 10, 2012

Solinst®

Levelogger® Model 3001

Solinst®

Leveloader Gold User Guide - Table of Contents

1 Getting Started **1**

2 Leveloader Gold **1**

3 System Requirements **1**

4 Software Installation **2**

5 Installing USB Drivers **3**

5.1 USB Installation for Windows XP 3

5.2 USB Installation for Windows Vista 5

5.3 USB Installation for Windows 7 7

5.4 Manual USB Installation 9

6 Hardware **10**

7 Leveloader Gold Menu **11**

7.1 Connect to Levelogger 11

7.2 View Stored Data 12

7.3 Data to PC 12

7.4 Leveloader Setup 13

7.4.1 Time Setup 13

7.4.2 Restore Factory Settings 13

7.4.3 Contrast Control 13

7.4.4 Leveloader Information 13

7.4.5 Erase Most Recent Log 13

8 Levelogger Menu **14**

8.1 Real Time - View Only 14

8.2 Data from Levelogger 15

8.3 Info from Levelogger 15

8.4 Edit Levelogger 15

8.4.1 Edit Date/Time 15

8.4.2 Edit Project ID and Location 16

8.4.3 Edit Sampling Rate and Sampling Type 16

8.4.4 Edit Unit 17

8.4.5 Edit Altitude 17

8.5 Load Levelogger Settings Files 17

8.6 Restart Levelogger 18

8.7 Security 18

9 Levelogger Software and Leveloader Gold **19**

Software and Firmware Updates 19

9.1 Customizable Levelogger Settings File Setup 22

9.2 Erase Data 24

9.3 Clock Synchronization 24

9.4 Password Setup 25

10 Firmware Upgrade Utility **26**

Leveloader™

NOTE

In order to use the Leveloader Gold with Version 4.0.3 (or higher) Levelogger Software, the Leveloader must be upgraded to Firmware Version 2.000 (or higher).

NOTE

In order to use the Leveloader Gold with older model Leveloggers (Mini LT (silver), and LTC (black ceramic), users will be required to downgrade the on-board firmware in the Leveloader to Firmware Version 1.000 and use Levelogger Software Version 3.1.1.

1 Getting Started

This manual explains the capabilities of your Leveloader with the Solinst Levelogger® product line. To begin using your Leveloader, we strongly recommend that you install Levelogger Software Version 4.0.3 (or higher). Please visit www.solinst.com/Downloads/ to download the current version or check for updates.

2 Leveloader Gold

The Leveloader Gold is a supplementary accessory within the Levelogger datalogger series. It has the ability to view, change or add Levelogger logging settings, launch log sessions, download data, view existing or real time data and store multiple data files. The Leveloader supports the Levelogger Edge, Levelogger Junior Edge, LTC Levelogger Junior, Barologger Edge, Model 3002 Rainlogger, Levelogger Gold, Barologger Gold, Levelogger Junior and previous Levelogger models including: the Mini LT (silver), and the LTC (black ceramic). The Leveloader is designed to communicate with a PC via Levelogger Software.

3 System Requirements

The minimal hardware and software requirements for software installation and operation are:

Hardware	Software
Memory: 256MB or more	OS: Windows XP, Vista, or 7
Display: VGA: 800 x 600 pixels, 256 colour	
Ports: USB or RS232 Serial Port	
Hard Drive space: 64MB	

Communication Port Setting for Levelogger Communications:

Bits per second	9600
Data bits	8
Stop bits	1
Flow control	None

4 Software Installation

Web Download

Download the newest version of Levelogger Software by visiting www.solinst.com/Downloads/

CD Installation

1) Insert the software CD provided.
2) If the installer does not automatically start, to activate the software install click on the 'setup.exe' file located on the software CD.
3) The Software Installation Wizard will guide you through the remaining installation process. Figure 4-1 shows the Levelogger Installation Wizard.
4) Restart the computer after installation is completed. Default Directory is C:\Program Files\Solinst\Levelogger4_0

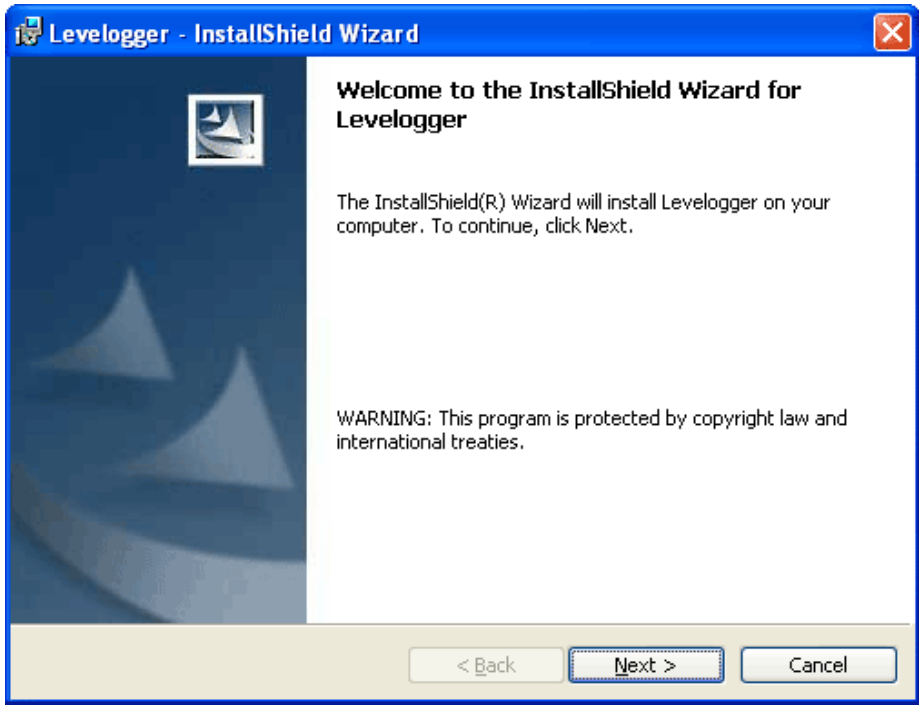

Levelogger - InstallShield Wizard
Welcome to the InstallShield Wizard for Levelogger
The InstallShield(R) Wizard will install Levelogger on your computer. To continue, click Next.
WARNING: This program is protected by copyright law and international treaties.
< Back
Next >
Cancel

Figure 4-1 Levelogger - InstallShield Wizard

NOTE

After plugging in the USB device, if the Found New Hardware Wizard does not automatically appear, proceed to the Manual USB Installation instructions in Section 5.4.

5 Installing USB Drivers

Levelogger Software Version 4.0.3 comes equipped with USB drivers.

5.1 USB Installation for Windows XP

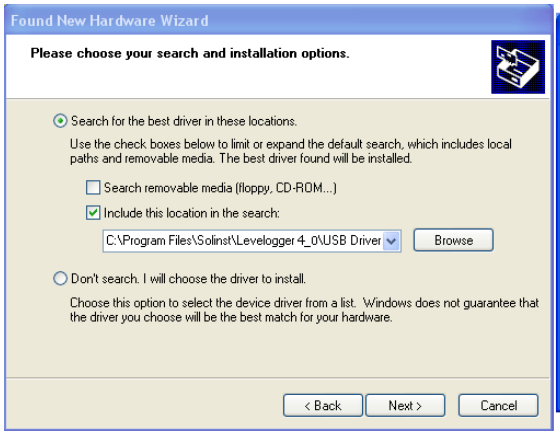
1) Plug the USB device into the computer, and Windows will automatically detect the connected device. Click 'Install' from a list or specific location', then click the 'Next' Button. Start the Hardware Installation Wizard (Figure 5-1).

Found New Hardware Wizard
Welcome to the Found New Hardware Wizard
This wizard helps you install software for:
Leveloader Gold USB Serial Port
If your hardware came with an installation CD or floppy disk, insert it now.
What do you want the wizard to do?
Install the software automatically (Recommended)
Install from a list or specific location (Advanced)
Click Next to continue.
< Back
Next >
Cancel

Figure 5-1 Found New Hardware Wizard Window

2) Select the installation option, 'Include this location in the search' (Figure 5-2), then click the 'Browse' Button to search for the appropriate directory:

C:\Program Files\Solinst\Levelogger4_0\USB Drivers


Found New Hardware Wizard
Please choose your search and installation options.
Search for the best driver in these locations.
Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
Search removable media (floppy, CD-ROM...)
Include this location in the search:
C:\Program Files\Solinst\Levelogger 4_0\USB Driver
Browse
Don't search. I will choose the driver to install.
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.
< Back
Next >
Cancel

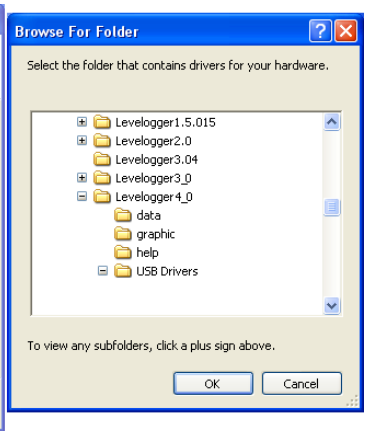


Figure 5-2 Found New Hardware Window and Figure 5-3 Browse for Folder Window

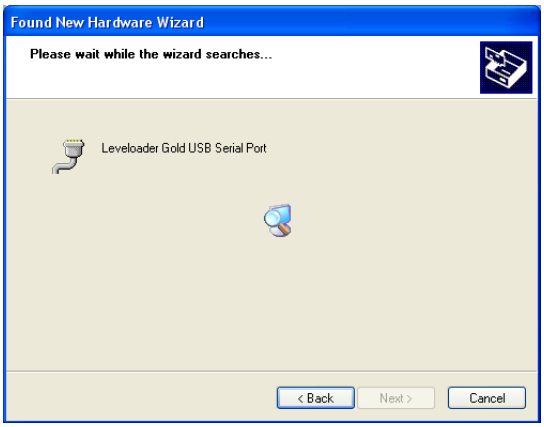


Figure 5-4 Found New Hardware Search Window

3) A warning message will then prompt that the software has not passed the Windows Logo Test. Select 'Continue Anyway' (Figure 5-5). This will complete the installation process. A system restart may be required. Repeat the steps if the installation fails the first time.

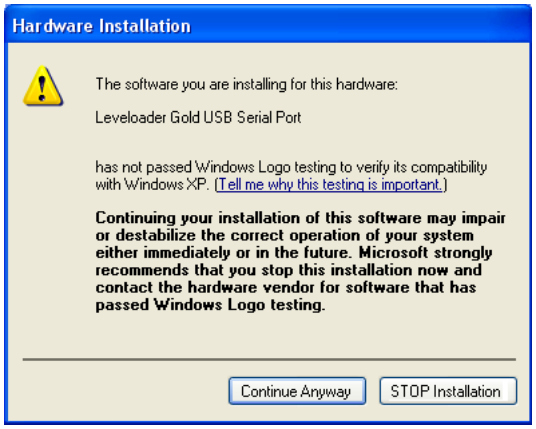

Hardware Installation
The software you are installing for this hardware:
Leveloader Gold USB Serial Port
has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

Figure 5-5 Hardware Installation Window

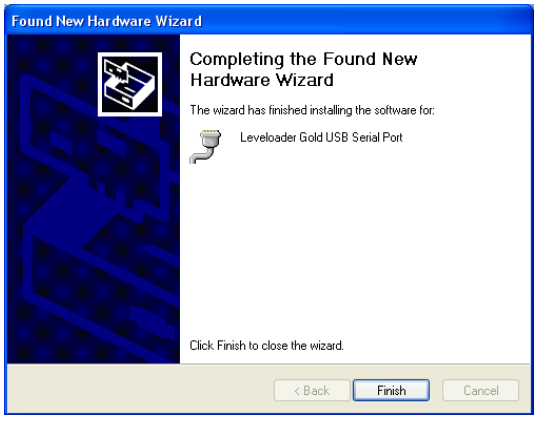

Found New Hardware Wizard
Completing the Found New Hardware Wizard
The wizard has finished installing the software for:
Leveloader Gold USB Serial Port
Click Finish to close the wizard.
< Back
Finish
Cancel

Figure 5-6 Found New Hardware Completed Window

NOTE

After plugging in the USB device, if the Found New Hardware Wizard does not automatically appear, proceed to the Manual USB Installation instructions in Section 5.4.

5.2 USB Installation for Windows Vista

1) Plug the USB Optical Reader or PC Interface cable into the desired PC. The system will automatically detect the connected unit and start the 'Found New Hardware' Wizard.
2) From the provided list select "Locate and install driver software (recommended)".

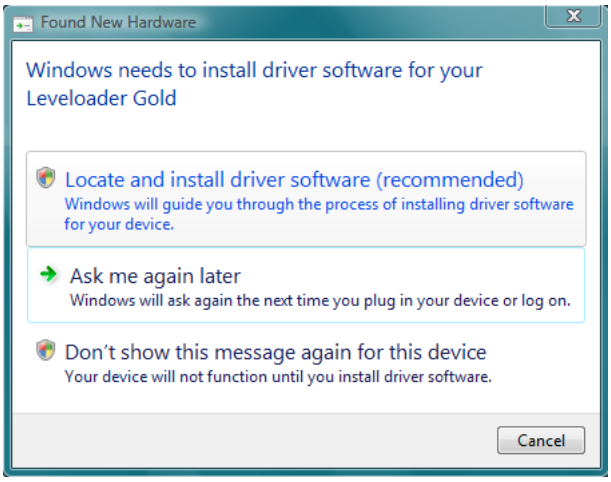

Found New Hardware
Windows needs to install driver software for your Leveloader Gold
Locate and install driver software (recommended)
Windows will guide you through the process of installing driver software for your device.
Ask me again later
Windows will ask again the next time you plug in your device or log on.
Don't show this message again for this device
Your device will not function until you install driver software.
Cancel

Figure 5-7 Found New Hardware Window

3) On the next screen select, "I don't have the disc. Show me other options."

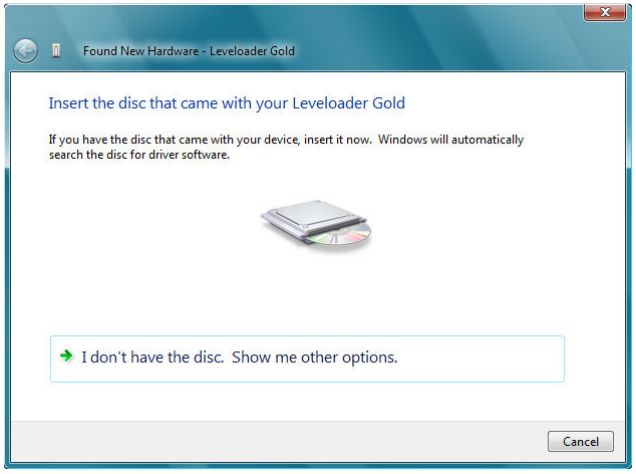

Found New Hardware - Leveloader Gold
Insert the disc that came with your Leveloader Gold
If you have the disc that came with your device, insert it now. Windows will automatically search the disc for driver software.
I don't have the disc. Show me other options.
Cancel

Figure 5-8 Found New Hardware - USB Serial Port Window

4) On the next screen select, "Browse my computer for driver software (advanced)" option.

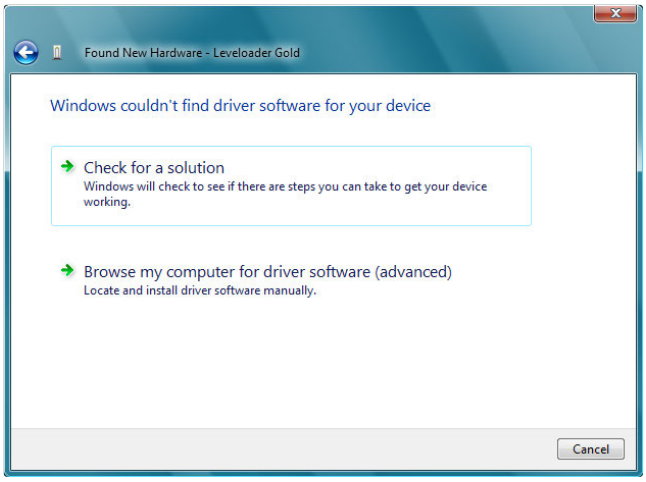

Found New Hardware - Leveloader Gold
Windows couldn't find driver software for your device
Check for a solution
Windows will check to see if there are steps you can take to get your device working.
Browse my computer for driver software (advanced)
Locate and install driver software manually.
Cancel

Figure 5-9 Found New Hardware Browse Window

5) Select the Browse button and point the navigation window to the provided USB drivers located within the Levelogger4_0 folder. The default destination is:

C:\Program Files\Solinst\Levelogger4_0\USB Drivers

The selected pathway will be provided within the window, select Next on the wizard to complete the installation.

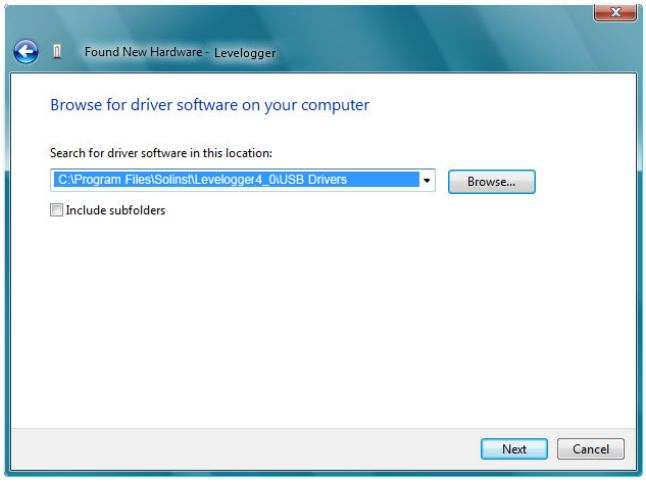


Figure 5-10 Search for Driver Software Window

6) Once the installation completes, a system restart may be required. If the found new hardware wizard prompts again, please repeat steps 1 - 6.

5.3 USB Installation for Windows 7

1) Plug the Leveloader into the desired PC. Windows will automatically detect the device, but will not install the driver.
2) Press the Windows start button to bring up the start menu, select "Control Panel", then "Device Manager".
3) Under "Other Devices" there will be a device shown with a yellow warning symbol. Right click on this device, and select "Update Driver Software".

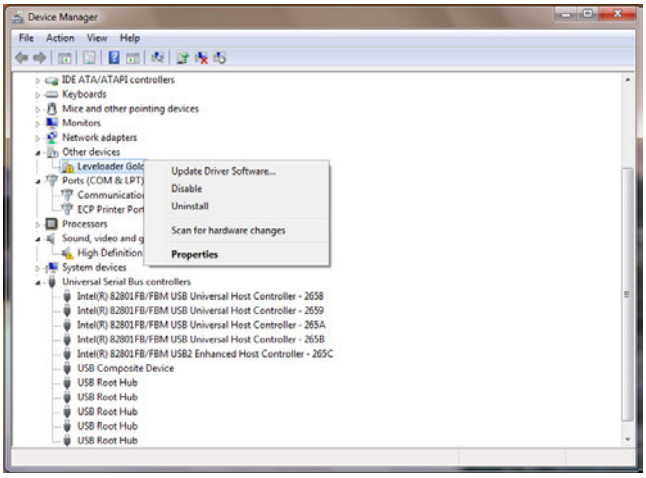


Figure 5-11 Update Driver Software

4) Select "Browse my computer for driver software".

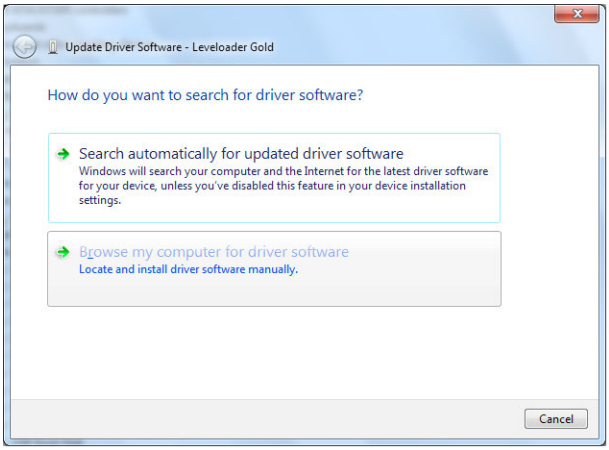

Update Driver Software - Leveloader Gold
How do you want to search for driver software?
Search automatically for updated driver software
Windows will search your computer and the Internet for the latest driver software for your device, unless you've disabled this feature in your device installation settings.
Browse my computer for driver software
Locate and install driver software manually.
Cancel

Figure 5-12 Search for Driver Software

5) Click the Browse button and point the navigation window to the provided USB drivers located within the Levelogger4_0 folder (See Figure 5-13). Default destination is:

   C:\Program Files\Solinst\Levelogger4_0\USB Drivers

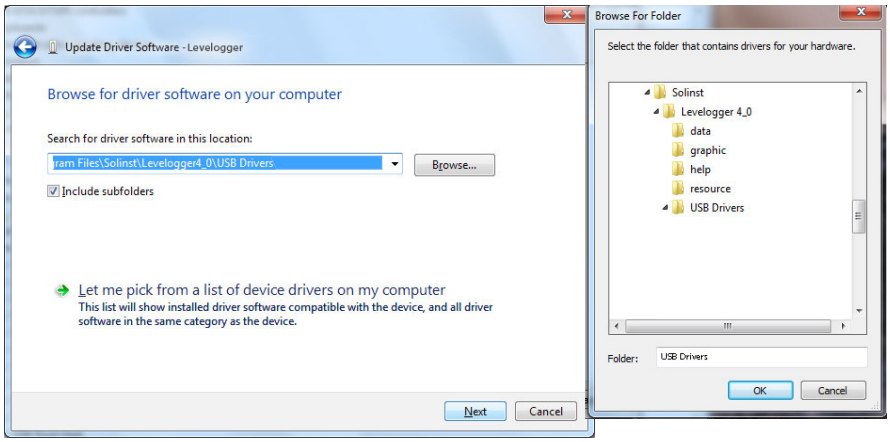


Figure 5-13 Browse for Driver Software

6) Select Next. A window may appear stating "Windows can't verify the publisher of this driver software", select "Install this driver software anyway".

7) Windows will confirm when the installation is complete. Press Close to close the window, then go back to the "Device Manager".

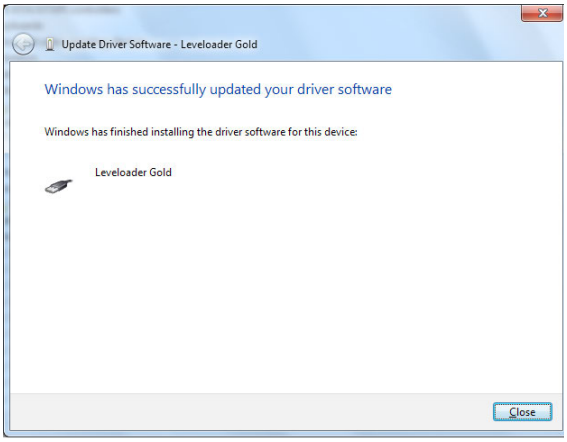

Update Driver Software - Leveloader Gold
Windows has successfully updated your driver software
Windows has finished installing the driver software for this device:
Leveloader Gold
Close

Figure 5-14 Driver Software Installation Complete

8) You will repeat steps 3 - 7 to update the USB Serial Port. This will now be shown under "Other Devices" with a yellow warning symbol.

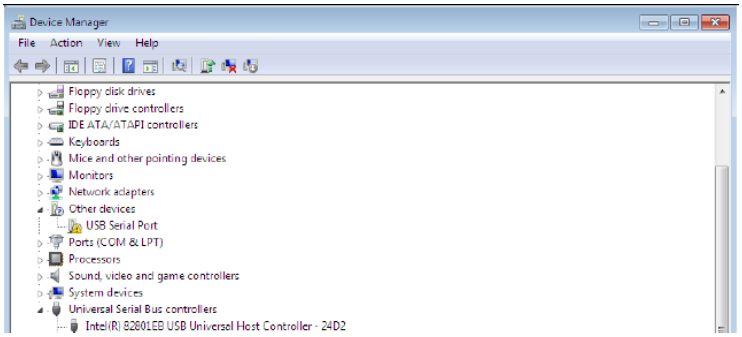


Figure 5-15 Update USB Serial Port

9) Once this installation is complete, a window will confirm the COM port assigned to the device.

5.4 Manual USB Installation

If your Leveloader is plugged in and the Found New Hardware Wizard fails to start, then follow these steps:

1. Open the Device Manager. Typically this is found through the path:
   Start > Control Panel > System > Hardware > Device Manager

   Once the Device Manager is open, a version of the following list(s) will appear:

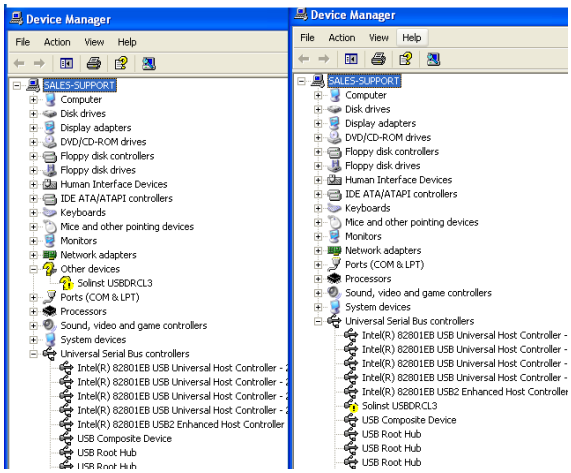


Figure 5-17 Device Manager

2. Identify the Solinst Leveloader from the list. The device will be categorized under "Other Devices" or "Universal Serial Bus Controllers".
3. Highlight the device in the list and right click. You will see an option to "Update the driver". This will start the "Hardware Update Wizard". Now follow the instructions for your specific Windows version.

NOTE

If you are unsure which is the correct device in the list, with the screen visible, safely remove the device and then reconnect it. The list should automatically refresh accordingly.

NOTE

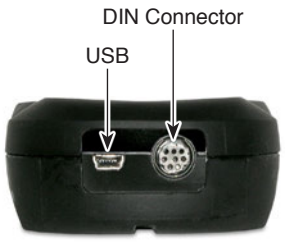
If you do not know the correct Com Port that was assigned to your device, re-open the Device Manager. Expand "Ports (COM & LPT)" to show the Com Port that has been assigned.

NOTE

Do not open the Leveloader case. Opening the unit will void the manufacturer's warranty.

NOTE

Leveloader Gold uses a 9V battery. If the battery gauge on the Leveloader is low, replace the battery with either an alkaline or lithium. Access the battery by unscrewing the battery hatch.



Bottom View showing Connections

6 Hardware

Figure 6-1 illustrates the Leveloader Gold and the key functions of each component.

Figure 6.1 Leveloader Gold

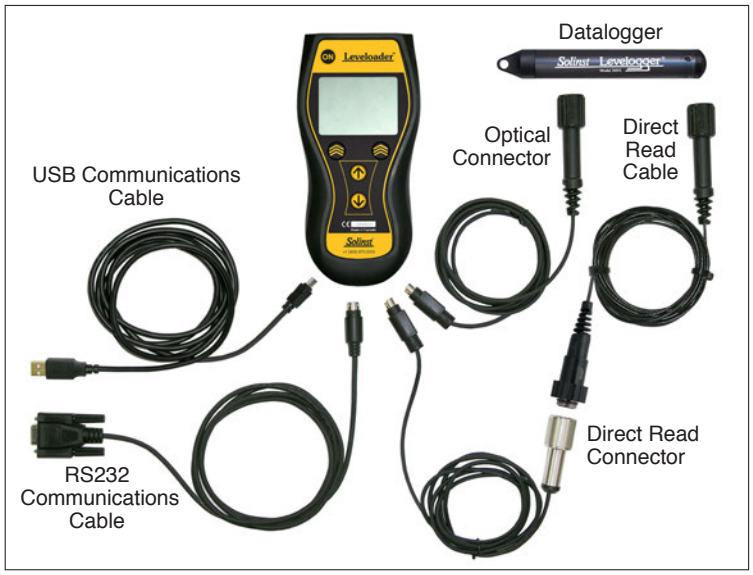


Figure 6-2 Leveloader Gold Connections

7 Leveloader Gold Menu

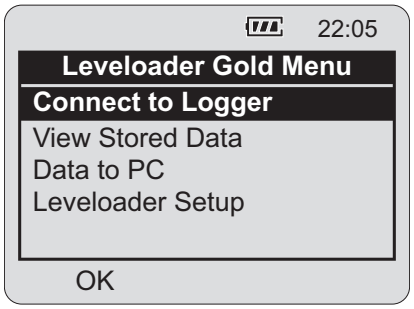


Figure 7-1 Main Menu

Figure 7-1 illustrates the main menu of the Leveloader Gold. The Battery Gauge depicts the remaining life of the Leveloader's 9V battery. Battery levels can be displayed: full, high, medium, low and empty. When the battery icon is empty, replace the battery immediately.

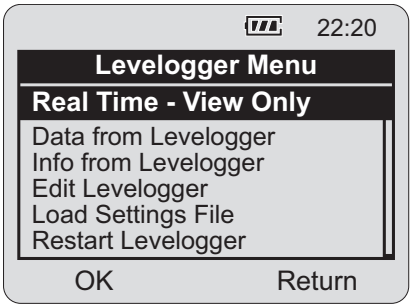
7.1 Connect to Levelogger

Connect a Levelogger to the Leveloader with the supplied Optical and Direct Read Connector Cables. A connection can be made directly to a Levelogger using the Optical Connector, or a Direct Read Cable assembly. Please note that only one Levelogger should be connected to a Leveloader at a time.

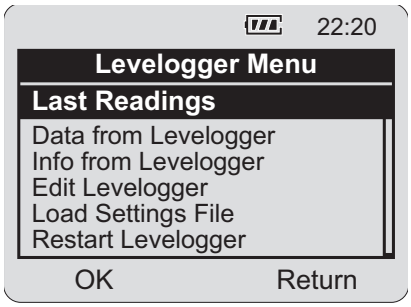
NOTE

The features available within the Levelogger menu are based on the type of datalogger connected.

When 'Connect to Logger' is selected, the Leveloader will begin to communicate to the connected datalogger. When communication is successful the Levelogger Menu will appear. There are six options under the Levelogger menu: 'Real Time - View Only', 'Data from Levelogger', 'Info from Levelogger', 'Edit Levelogger', 'Load Settings File' and 'Restart Levelogger'. Each of these menu options are described in Section 8.



Levelogger Menu with Levelogger Edge, Junior Edge, LTC Junior, Rainlogger, Gold or Junior Connected
(Leveloader Firmware 2.000 and higher)



Levelogger Menu with Mini LT Connected
(Leveloader Firmware 1.000)

Figure 7-2 Levelogger Menu

7.2 View Stored Data

'View Stored Data' displays a list of stored log files together with the serial number for each Levelogger file (Figure 7-3). To select a specific log file use the Up/Down Buttons to highlight the desired log file and select 'OK'. The next screen (Figure 7-4) will show the number of readings within the log file and the complete data set. Use Up/Down Buttons to scroll.

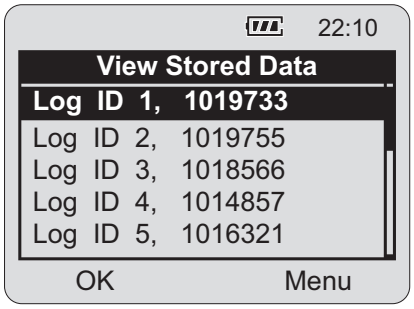


Figure 7-3 View Stored Data

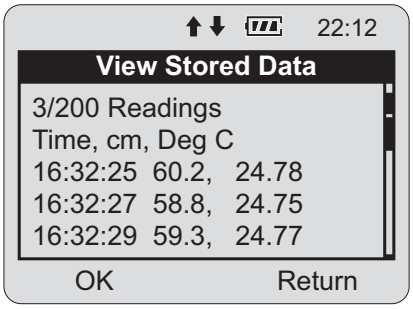


Figure 7-4 Next Screen, View Stored Data Menu

7.3 Data to PC

'Data to PC' lists the number of log files stored in the Leveloader (Figure 7-5). To transfer data from the Leveloader, turn the Leveloader ON, connect the USB cable from the Leveloader to the PC and open the Levelogger Version 4 (or later) Software. Within the software, select the 'Leveloader' tab (Figure 9-1). Inside the Leveloader window, click the 'Retrieve Leveloader Settings' icon, then the download icon to start data transfer from the Leveloader to the PC. To return to the previous menu, press the right Chevron Button (see Section 9 for more details).

NOTE

The Leveloader will not turn on when connected to the PC with a USB Cable. You must turn the Leveloader on before connecting, or unplug from the PC then turn on and reconnect it.

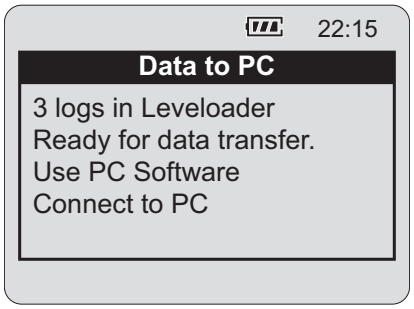


Figure 7-5 Data to PC Menu

7.4 Leveloader Setup

The Leveloader Setup menu (Figure 7-6) contains five functions: Time Setup, Restored Factory Settings, Contrast Control, Leveloader Information and Erase Most Recent Log.

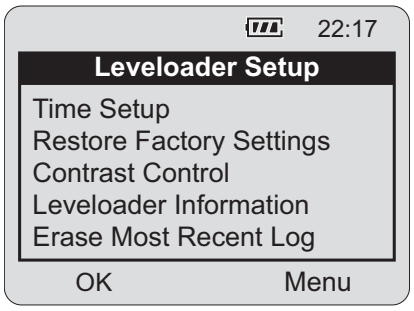


Figure 7-6 Leveloader Setup Menu

7.4.1 Time Setup

> **NOTE**
> The Leveloader Time can also be updated automatically by synchronizing with a PC using Levelogger Software. Refer to Section 9.3 for further detail.

The Time Setup menu is used to adjust the date and time settings of the Leveloader (Figure 7-7). The date/time format is YY/MM/DD HH:MM:SS. Using the Up/Down buttons, scroll and change the date/time, then select {SUBMIT} to confirm the changes. To discard the changes, click 'Menu' which also returns to the previous menu.

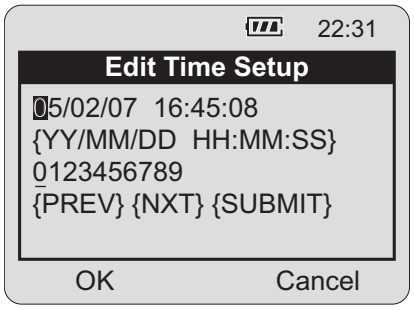


Figure 7-7 Time Setup Menu

7.4.2 Restore Factory Settings

This menu is used to restore the default settings of the Leveloader to the original factory settings. E.g. Contrast Control.

7.4.3 Contrast Control

Contrast Control is used to adjust the brightness of the LCD. The user can also adjust the contrast for the LCD in the main menu by holding down the top right Chevron Button and selecting either the Up or Down Button.

7.4.4 Leveloader Information

Leveloader Information shows the firmware version number, memory capacity, percent available and Solinst website address.

7.4.5 Erase Most Recent Log

Erase Most Recent Log function will delete the latest log file stored in the Leveloader, to free up memory. When selected, a warning message will prompt the user to confirm the removal of the log file. To erase all files stored in the Leveloader use the Levelogger PC Software. (See Section 9.2.)

NOTE

The features available within the Levelogger Menu are based on the type of datalogger connected.

8 Levelogger Menu

When 'Connect to Logger' is selected, the Leveloader will begin to communicate with the connected datalogger. When communication is successful the Levelogger Menu will appear (Figure 8-1). There are six options available: 'Real Time - View Only', 'Data from Levelogger', 'Info from Levelogger', 'Edit Levelogger', 'Load Default Settings' and 'Restart Levelogger'.

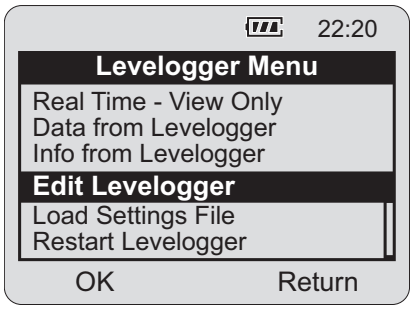
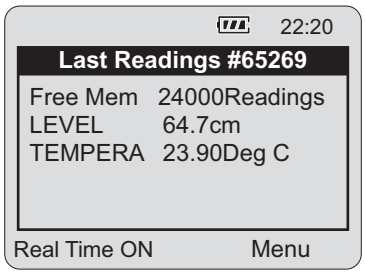


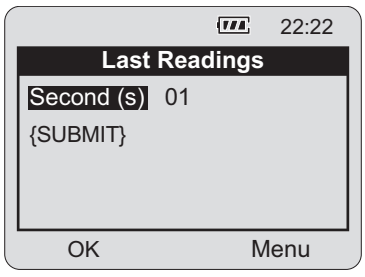
Figure 8-1 Levelogger Menu

NOTE

If a Mini LT or Black LTC Levelogger are connected, the 'Real Time View Only' function will be replaced by 'Last Readings'. This function will allow the user to only view the last data points recorded by the attached Levelogger



Last Readings Menu (Silver LT)



Last Readings Edit Menu (Silver LT)

8.1 Real Time - View Only

When 'Real Time - View Only' is selected from the Levelogger Menu, the Levelogger will take a reading immediately and display it in the LCD screen (Figure 8-2). The display will show the data logger serial number, available memory and the readings from the data logger's available channels (level, temperature and/or conductivity).

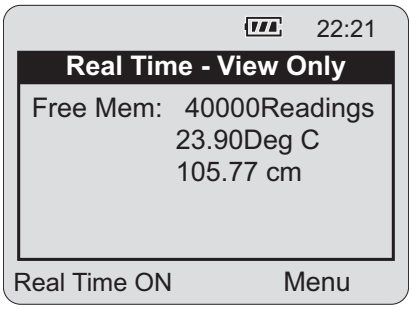


Figure 8-2 Real Time - View Only

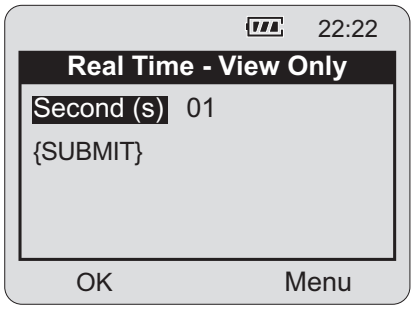


Figure 8-3 Real Time - Edit Menu

To update the Levelogger readings periodically, select 'Real Time On' using the left Chevron Button. When enabled, input a sampling rate (Figure 8-3). Select the time increments: seconds, minutes or hours and then the rate: 1-99. **Real Time readings can not be saved**.

8.2 Data from Levelogger

'Data from Levelogger' downloads the stored data from the attached Levelogger. The screen (Figure 8-4) allows scrolling with the Up/Down buttons through the stored data, indicates battery level, time, data logger serial number and number of readings. To save the data to the Leveloader, push the left Chevron Button. After the data has been saved in the Leveloader memory, the Leveloader will return to the main menu.

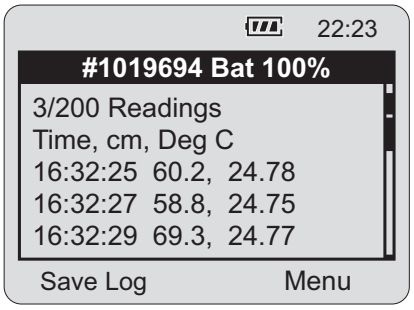


Figure 8-4 Data from Levelogger Menu

8.3 Info from Levelogger

When 'Info from Levelogger' is selected, a list of the information from the attached Levelogger will be shown on the screen. The list contains the firmware version, battery level, number of readings, data logger date, time and data logger status.

NOTE

The Levelogger must be stopped in order to change the settings. To stop the Levelogger, press BOTH the UP and DOWN Buttons simultaneously.

Remember to save the log before re-starting.

8.4 Edit Levelogger

The 'Edit Levelogger Menu' displays the attached data logger's settings. The Leveloader can adjust many of the Levelogger's settings, including: Date/Time, Project ID, Location, Sampling Rate, Sampling Type, Units, and Altitude for some datalogger types. To adjust any setting, highlight it and click the Edit button.

8.4.1 Edit Date/Time

This menu item is used to synchronize the date and time of the Levelogger with the Leveloader. To synchronize the time, highlight the Date/Time and click 'Edit' in the Edit Levelogger menu.

NOTE

I If there was a password set for the Leveloader, it will need to be entered before you can edit the Levelogger settings. See Section 8.7 for details.

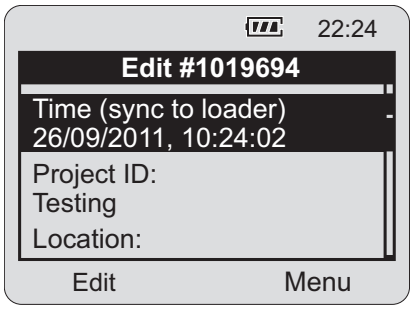


Figure 8-5 Edit Levelogger Menu

8.4.2 Edit Project ID and Location

Figure 8-6 shows the 'Edit Project ID' screen. The current Project ID is shown on top of the menu as 'TESTING'. To change the Project ID, highlight the character to modify by selecting {PREV} or {NXT}. Select a character from the list below and click 'Edit' to modify the highlighted character.

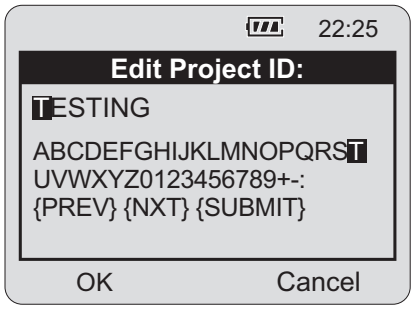


Figure 8-6 Edit Project ID Menu

Shading over the character indicates the current character. Press {SUBMIT} when complete. The Leveloader will send the new setting to the Levelogger. To discard the changes, click the 'Cancel' button before submitting. This will return you to the Edit Levelogger menu and discard the changes. This type of operation is also used to modify the Location.

8.4.3 Edit Sampling Rate and Sampling Type

The 'Edit Sampling Rate' screen displays the current sampling rate stored in the Levelogger (Figure 8-7). The following procedure is used to modify the sampling rate:

1. Select unit (Seconds, Minutes and Hours) using UP/DN and click Edit.
2. Select duration (1 – 99) using UP/DN and click OK.
3. When {SUBMIT} is highlighted, click OK to confirm all the changes and the new setting will be sent to the Levelogger.

To cancel the operation, click 'Cancel' to return to the Edit Levelogger menu.

These changes can be confirmed by viewing the 'Edit Levelogger Menu'. The 'Edit Sampling Type' screen displays the current sampling type stored in the Levelogger (Figure 8-8). Use the up/down buttons to scroll through the sampling types: Linear, Schedule or Event Based. To accept the selection press {Submit}.

NOTE

In 'Event Based' sampling, the user must define what the pressure change must be for data logging to occur, as well as define the sampling rate to determine how often the data logger checks pressure changes.

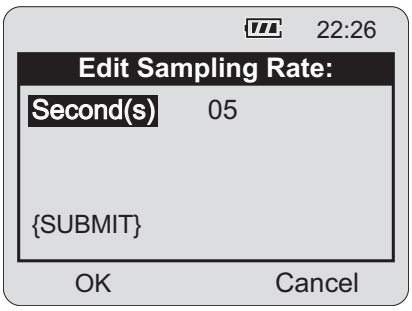


Figure 8-7 Edit Sampling Rate Menu

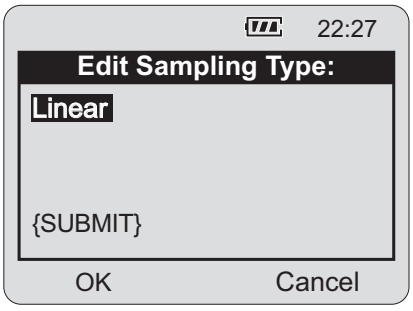


Figure 8-8 Edit Sampling Type Menu

8.4.4 Edit Unit

'Edit Unit' (Figure 8-9) allows you to change the units that the Levelogger is using to record LEVEL and TEMPERATURE. Use the Up/Down buttons to scroll through the units for LEVEL, and press okay when the desired unit is shown. Repeat this for the TEMPERATURE unit.

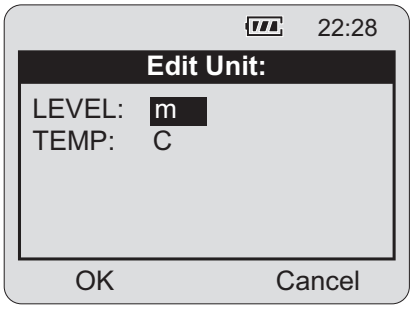


Figure 8-9 Edit Unit Menu

NOTE

Edit Altitude is only available for the Levelogger Gold and Junior Models. Levelogger Edge and Levelogger Junior Edge data can be adjusted for Altitude post data collection using the Data Compensation Wizard. See Levelogger User Guide.

8.4.5 Edit Altitude

'Edit Altitude' is very similar in setup to the Edit Project ID operation. The Leveloader only allows the numerical value of the altitude to be modified, not the units. Enter the altitude and select {SUBMIT} to confirm the modification. The units of altitude can only be adjusted using Levelogger Software on a PC.

8.5 Load Levelogger Settings Files

To use this feature, the 'Levelogger Settings Files' must be pre-programmed using Levelogger PC Software. Details provided in section 9.1.

NOTE

Maximum altitude value for the Levelogger Gold is 5000 m (16400 ft).

The maximum altitude value for the Mini LT Leveloggers is 3000 m (9750 ft).

Once selected, a list of up to 10 customizable settings are shown (Figure 8-10). By using the Up/Down buttons, the user can select one of the settings and send it directly to the attached Levelogger. A confirmation message will follow. Then scroll down to restart the Levelogger

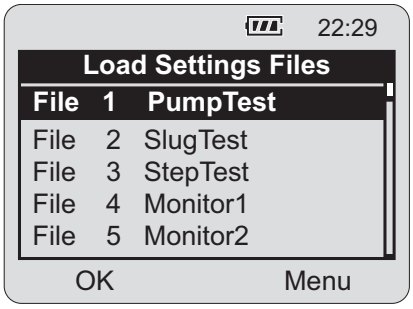


Figure 8-10 Load Settings Files Menu

NOTE

Remember the Levelogger must be stopped to be restarted. To stop the Levelogger, press BOTH the UP and DOWN Buttons simultaneously.

NOTE

Remember to save the log file before restarting the Levelogger.

NOTE

Remember that the Levelogger must be stopped to edit settings.

8.6 Restart Levelogger

By selecting 'Restart Levelogger' the user can start data logging immediately or with a defined future start time (Figure 8-11). If a future start time is selected the user must enter the desired start time (Figure 8-12). Please note that if the Levelogger is already running, then it must first be stopped (Figure 8-13). Remember to save the data file before restarting the Levelogger.

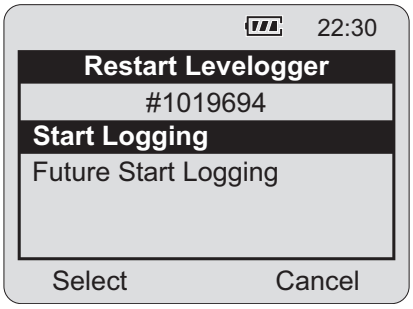


Figure 8-11 Levelogger Restart Options

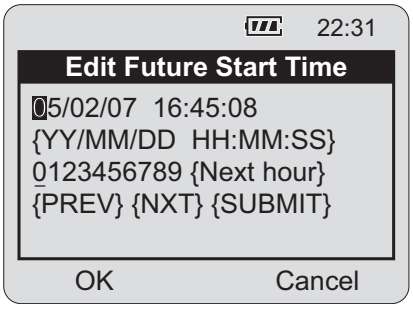


Figure 8-12 Edit Future Start Time

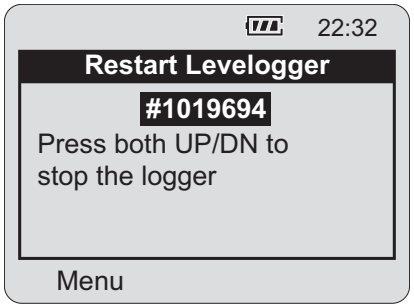


Figure 8-13 Stopping Levelogger

8.7 Security

If the Leveloader Gold has been configured with a password (see section 9.4 for details), then an Enter Password screen will appear if the user attempts to edit the attached Levelogger (Figure 8-14). If password protection is activated, use the UP/DN buttons to choose letter/function. Press OK to enter each letter in the password. Use {PREV} and {NXT} to move the cursor in the password and {SUBMIT} when the password is complete. Click the Menu button to exit the Enter Password screen. Note that the Levelogger must be stopped to edit settings.

Figure 8-14 Enter Password Menu

NOTE

Remember that the Leveloader must be in the 'Data to PC' mode when connecting to the software.

NOTE

Please note that depending on the computer make, the USB connection must sometimes be made before starting the Levelogger Software.

NOTE

The Leveloader will not turn on when connected to the PC with a USB Cable. You must turn the Leveloader on before connecting, or unplug from the PC then turn on and reconnect it.

NOTE

The 'Leveloader Information' section of the Leveloader Tab will display the firmware version that the Leveloader is currently using.

9 Levelogger Software and Leveloader Gold

Figure 9-1 shows the main window of Levelogger Software Version 4.0.3. To access the Leveloader options from the software window, click on the 'Leveloader' tab.

To begin communication between the Leveloader and the PC, turn the Leveloader on and connect the Leveloader using either the supplied USB or RS232 cable. Select the proper communications port that the Leveloader is connected to using the drop down 'Com Port' selection window. Select the 'Data to PC' option from the Leveloader main menu. Click the 'Retrieve Leveloader Settings' icon in the software.

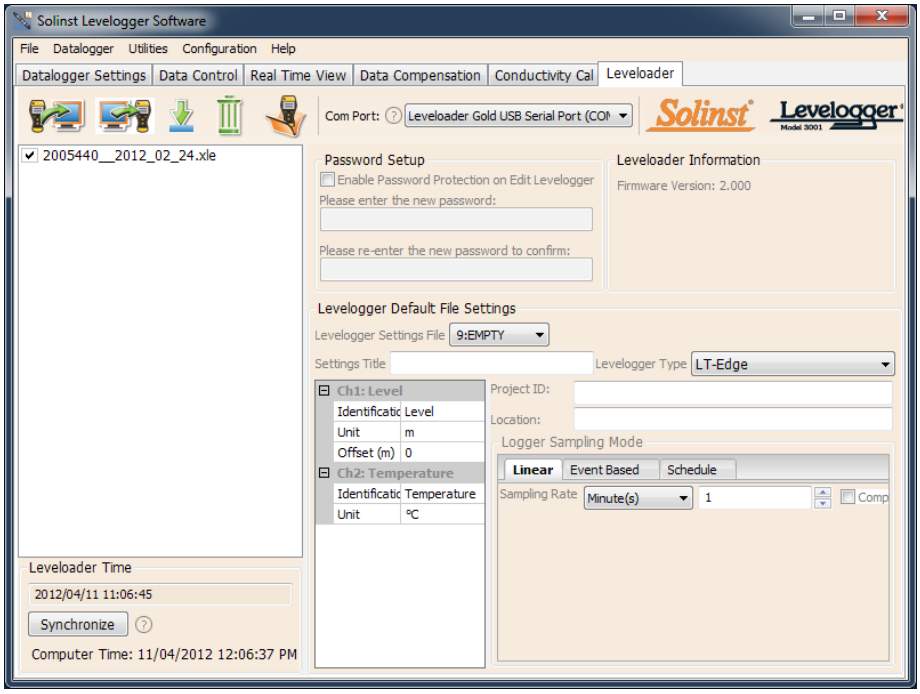


Figure 9-1 Leveloader Tab

Software and Firmware Updates

The software automatically checks for updates each time it is opened. If there is an update, "Software Update Available" will appear in the top right of the menu bar. When you click the message, a webpage will open, allowing you to download the update.

The Software checks for firmware updates once you have connected the Leveloader to the PC, put it in 'Data to PC' mode and communicated with the Software. "Firmware Update Available" will appear in the top right corner. When you click the message, a webpage will open, allowing you to download the update. See Section 10 for firmware update instructions.

NOTE

By selecting , you can choose the information you want to include in the file names of your downloaded data, e.g. start time, stop time, location and serial number.

When the Leveloader Gold is connected to the PC, the window on the left of the Leveloader tab will display the log files that are available for download. To download data from the Leveloader, select the file(s), then click the download data icon .

A destination folder window will open where you can choose the location your log files will be saved. Click the 'OK' button to start the transfer process.

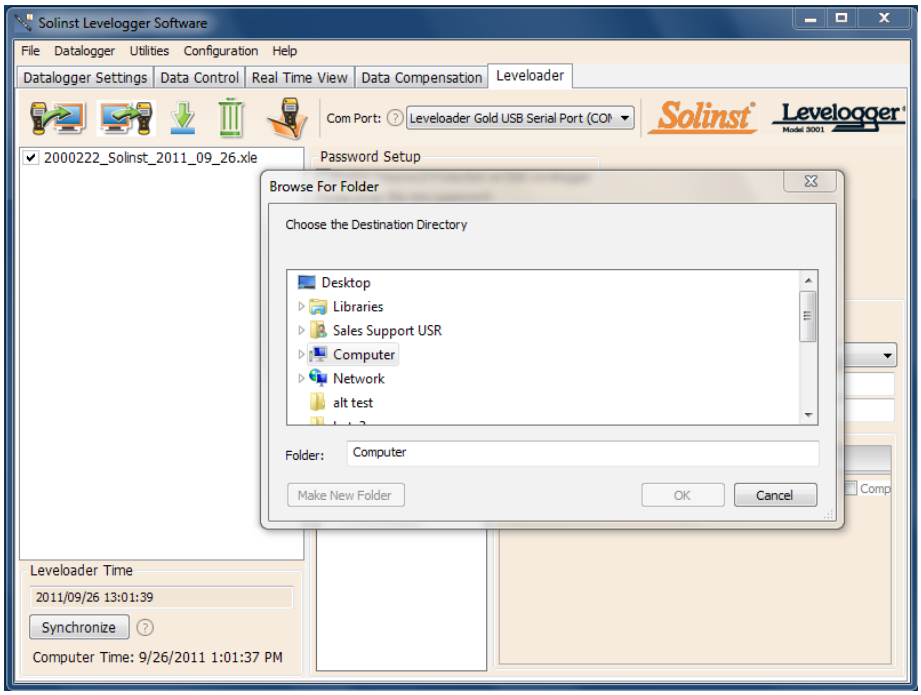


Figure 9-2 Log File Download

NOTE

For more information on the 'Data Control' tab, see the Levelogger Series User Guide for Software Version 4 (or later).

To view the log files, open the 'Data Control' tab. You can open the files using the open file icon . From here, you can also print data or export data to a .csv or .xml file.

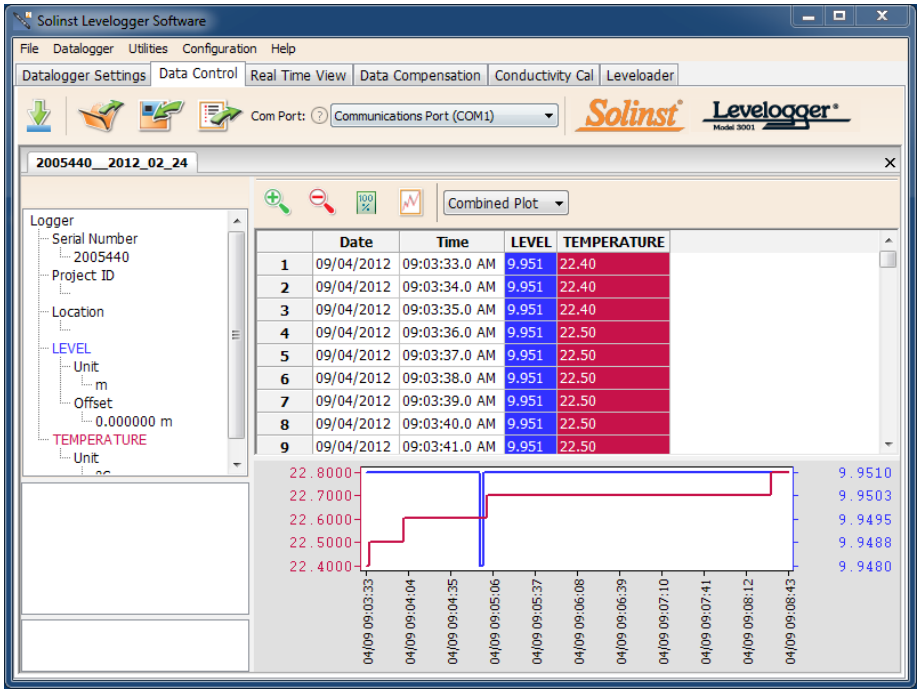


Figure 9-3 Data Control Window

NOTE

Remember that the Leveloader must be in the 'Data to PC' mode.

NOTE

Altitude and Density can be set for the Levelogger Junior, LTC Levelogger Junior, and Levelogger Gold and Barologger Gold dataloggers.

9.1 Customizable Levelogger Settings File Setup

This feature allows you to input up to 10 customized files with pre-defined settings for the Levelogger series including: Project ID, Location, Sample Mode, Sample Rate, Channel ID, Units and Offset.

To create a settings file in the 'Leveloader' tab, select the type of Levelogger you are creating the file for from the drop-down menu, then enter the desired Levelogger settings file name. The available sampling options will be displayed for that Levelogger type. Enter the settings to create the customized file (Figure 9-4). To send the settings file to the Leveloader, click the 'Apply Leveloader Settings' icon .

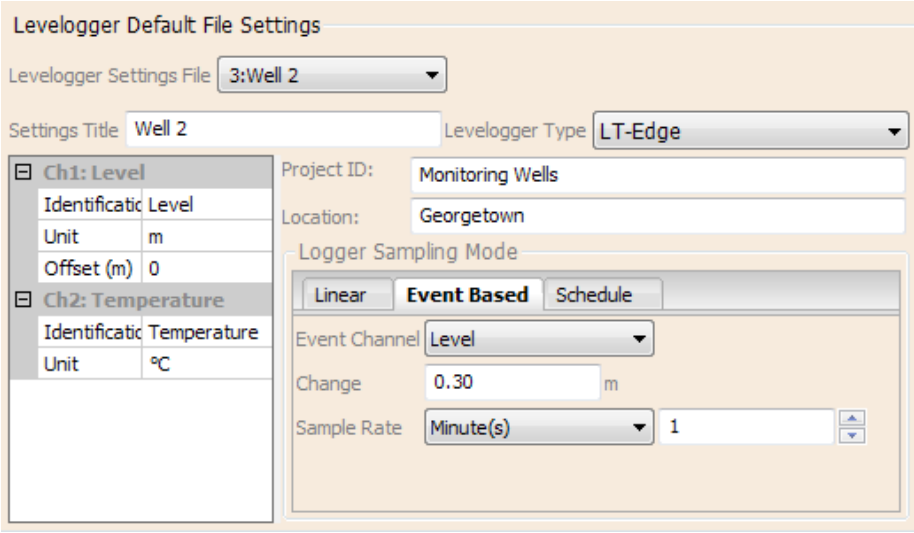


Figure 9-4 Levelogger Default File Settings

Please note that inputs into the 'Settings Title' will appear as the settings file title in the Leveloader (Figure 9-6). To create and add more than one customizable file, select a new 'EMPTY' slot from the drop down menu (highlighted drop down menu below).

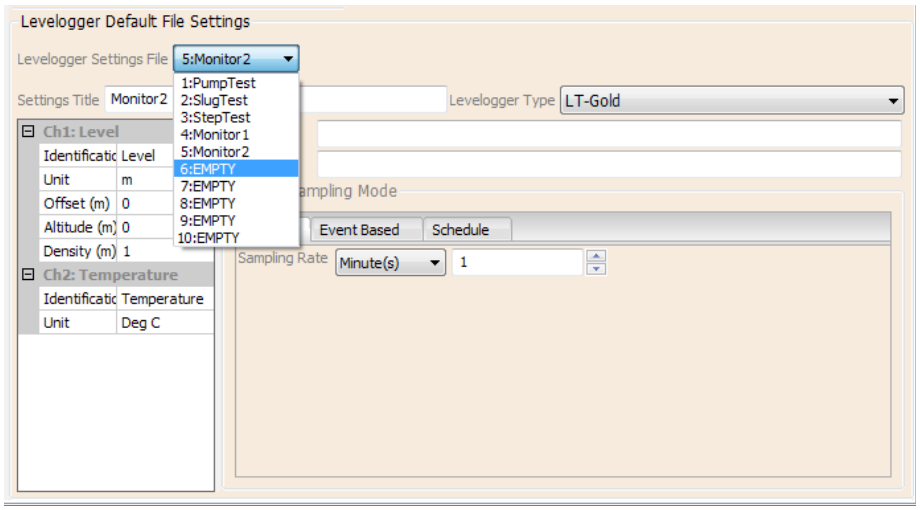


Figure 9-5 Levelogger Settings File - Setup

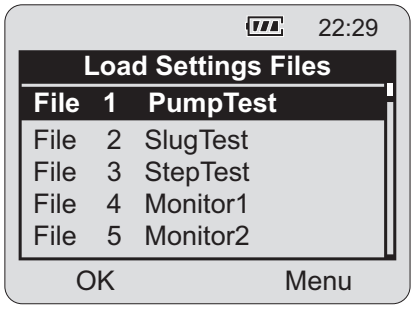


Figure 9-6 Leveloader - Load Settings File Window

9.2 Erase Data

To erase the stored files on the Leveloader Gold, click on the erase icon located in the 'Leveloader' tab. A message will prompt the user that all of the data will be erased. Once the data is erased, the attached Leveloader will indicate that there are 0 logs stored.

9.3 Clock Synchronization

The attached Leveloader's system time is displayed in the bottom left corner of the 'Leveloader' tab. To synchronize the Leveloader to the PC clock, simply click 'Synchronize'.

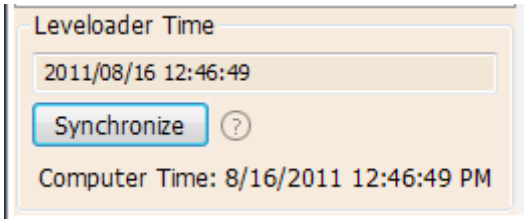


Figure 9-7 Clock Synchronization

NOTE

A maximum of 6 characters can be entered for the password.

9.4 Password Setup

Activating the password protection function will prevent unauthorized changes using the Leveloader, to an attached Levelogger's settings.

In this section of the 'Leveloader' tab, check to enable password protection, enter your password, then re-enter to confirm (Figure 9-8). To send the password to the Leveloader, click the 'Apply Leveloader Settings' icon .

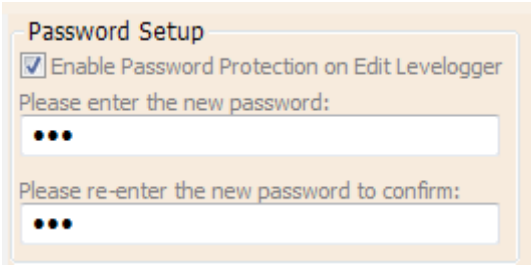


Figure 9-8 Password Setup

Once a password has been set, the 'Password Setup' section will update to look like Figure 9-9.

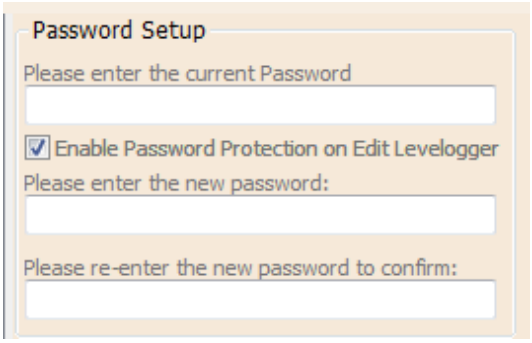

Password Setup
Please enter the current Password
Enable Password Protection on Edit Levelogger
Please enter the new password:
Please re-enter the new password to confirm:

Figure 9-9 Password Enabled

To remove a password, enter the current password, uncheck 'Enable Password Protection on Edit Levelogger', then click the 'Apply Leveloader Settings' icon. . The 'Password Setup' section will update to look like Figure 9-10.

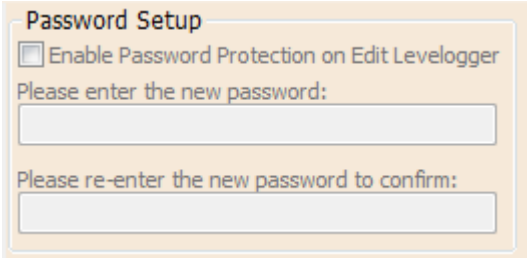

Password Setup
Enable Password Protection on Edit Levelogger
Please enter the new password:
Please re-enter the new password to confirm:

Figure 9-10 Password Not Enabled

NOTE

Before proceeding with a firmware upgrade, ensure your Leveloader is using a new/fully charged 9V battery. Using a depleted battery may cause communication interruption.

DO NOT allow an interruption to communication between the PC and Leveloader during a firmware upgrade. It is important that the communication between the PC and the Leveloader is not interrupted during a firmware/ calibration upload.

PLEASE make sure to close any other running programs, especially screen savers, and DO NOT disconnect the Leveloader before the upload is finished.

NOTE

The Software checks for firmware updates once you have connected the Leveloader to the PC, put it in 'Data to PC' mode and communicated with the Software. "Firmware Update Available" will appear in the top right of the menu bar. When you click the message, a webpage will open, allowing you to download the update.

10 Firmware Upgrade Utility

The Firmware Upgrade Utility is included with the Levelogger PC Software and can be used to upload new firmware files into a Leveloader. The firmware file can be obtained from http://www.solinst.com/Downloads/

To upload new firmware to a Leveloader Gold, follow these steps:

1) Turn the Leveloader ON, scroll to the 'Data to PC' option on the Leveloader Menu and select 'OK'. Connect the Leveloader to the PC using the USB or RS232 Communication Cable.
2) Open the Solinst Firmware Update Utility, which is located in the 'Utility' folder in the Levelogger4_0 folder. It can also be launched from the Utilities menu in the Levelogger Software. Pick the Com Port that the Leveloader is connected to and make sure the Baud Rate is set to 115200.
3) Click the 'Open' button, which should open a file dialog asking for the firmware file (*.ssf) to upload. Navigate to where the firmware file was saved on your PC, then click on the file and click 'Open' (make sure you have unzipped the downloaded firmware *.ssf file).
4) Check the 'Firmware File Information' box to make sure that the opened file is the right one.
5) Click the 'Upload Firmware' button to start the firmware upload process.
6) If a communication error occurs and is indicated in the Leveloader Information Window either before the "Verified Program Checksum" message or after the "Program Information Section", then restart the upgrade process.

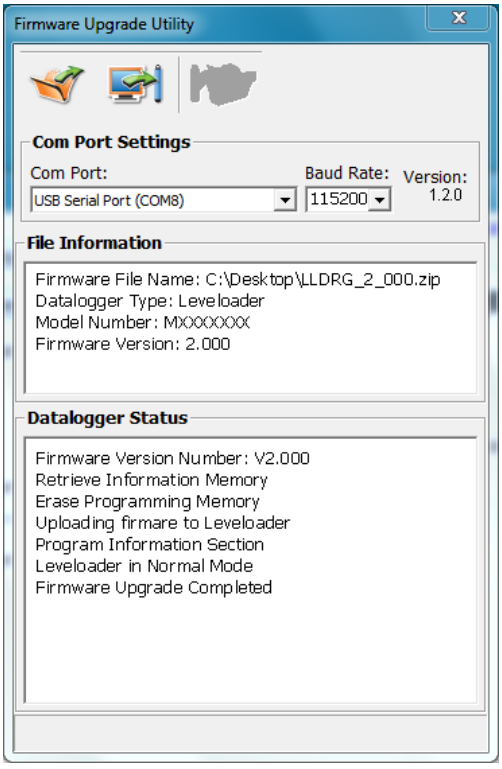


Figure 10-1 Firmware Upgrade Utility Window